CLAIMS

1. A video signal processing system for processing a video data V_{IN} and graphic data $D_{\mu P}$, comprising:

a) a filter unit, which receives the video data V_{IN}, and horizontally and vertically filters the video data V_{IN} to convert the video data V_{IN} into video pictures formated with a different number of columns and/or lines, and provides a filtered video signal indicative thereof, wherein said filter unit buffers individual pixels and/or lines in a first memory device;

b) a second memory device that receives and stores the graphic data $D_{\mu P}$ and said filtered video signal and provides stored signals indicative thereof;

c) a third memory device that is connected to said second memory, and stores data received from said second memory devices; and

d) a mixing unit that receives and mixes said stored graphic data and said stored filtered video data to provide a video output signal V_{OUT}.

2. The video signal processing system of claim 1, wherein said first memory device comprises random access memory.

3. The video signal processing system of claim 1, wherein said second memory is configured as fast cache memory.

4. The video signal processing system of claim 3, wherein said third memory device comprises random access memory.

5. The video signal processing system of claim 2, wherein said graphic graphic data $D_{\mu P}$ comprises bitmaps received from a microprocessor.

6. The video signal processing system of claim 2, comprising:

a controller that controls said filter unit, said first, second and third memories and said mixing unit to control the processing of said video signal procesing system.

7. The video signal processing system of claim 6, wherein said video signal processing system operates in real time with the clock frequency of said controller being higher than the clock frequency of the signal associated with the video data V_{IN} and said video output signal V_{OUT}.

8. The video signal processing system of claim 6, wherein said controller comprises a microprocessor.

9. A video signal processing system for processing a video data V_{IN} and graphic data $D_{\mu P}$, comprising:

a) a horizontal filter that receives the video data V_{IN} and converts the video data V_{IN} into video pictures formated with a different number of columns, and provides a horizontally filtered video signal indicative thereof, wherein said horizontal filter buffers individual pixels and/or lines in a first memory device;

b) a second memory device that receives and stores the graphic data $D_{\mu P}$ and said horizontal filtered video signal and provides stored signals indicative thereof;

c) a third memory device that is connected to said second memory, and stores data received from said second memory devices; and

d) a mixing and filtering unit that receives said stored graphic data and said stored horizontally filtered video data, vertically filters said stored horizontally filtered video data to convert the video data into video pictures with a different number of lines and provide a vertically filtered signal indicative thereof, and mixes said stored graphic data with said vertically filtered video signal to provide a video output signal V_{OUT}.

10. The video signal processing system of claim 9, wherein said second memory device is configured as a fast cache memory.

11. The video signal processing system of claim 10, wherein said third memory device comprises random access memory.

12. The video signal processing system of claim 10, wherein the graphic data comprises bitmaps received from a microprocessor.

13. The video signal processing system of claim 10, comprising:

a controller that controls said horizontal filter, said first, second and third memories and said mixing unit to control the processing of said video signal procesing system.

14. The video signal processing system of claim 13, wherein the clock frequency of said controller is higher than the clock frequency of a signal at the video input signal V_{IN} and said video output signal V_{OUT}.

15. The video signal processing system of claim 14, wherein said controller comprises a microprocessor.

16. The video signal processing system of claim 15, wherein said video signal processing system is used for interlace progressive conversion.

17. A video signal processing system for processing a video data V_{IN} and graphic data $D_{\mu P}$, comprising:

a filter unit, which receives the video data V_{IN} and horizontally and vertically filters the video data V_{IN} to convert the video data V_{IN} into video pictures formated with a different number of columns and/or lines, and provides a filtered video signal indicative thereof, wherein said filter unit buffers individual pixels and/or lines in a first memory device;

b) a second memory device that receives and stores the graphic data $D_{\mu P}$ and said filtered video signal and provides stored signals indicative thereof;

c) a third memory device that is connected to said second memory, and stores data received from said second memory devices; and

d) a mixing unit that receives and mixes said stored graphic data and said stored filtered video data to provide a video output signal V_{OUT}, which represents a superposition of said stored graphic data and said stored filtered video data.

18. A video signal processing system for processing a video data V_{IN} and graphic data $D_{\mu P}$, comprising:

a) a horizontal filter that receives the video data V_{IN} and converts the video data V_{IN} into video pictures formated with a different number of columns, and provides a horizontally filtered video signal indicative thereof, wherein said horizontal filter buffers individual pixels and/or lines in a first memory device;

b) a second memory device that receives and stores the graphic data $D_{\mu P}$ and said filtered video signal and provides stored signals indicative thereof;

c) a third memory device that is connected to said second memory, and stores data received from said second memory devices; and

d) a mixing and filtering unit that receives said stored graphic data and said stored horizontally filtered video data, vertically filters said stored horizontally filtered video data to convert the video data into video pictures with a different number of lines and provide a vertically filtered signal indicative thereof, and mixes said stored graphic data with said vertically filtered video signal to provide a video output signal V_{OUT}.